

# People's Health Surveillance in the Construction of Coexistence with the Semi-Arid in Times of Pandemic COVID-19

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Received: 22 Aug 2022,

Received in revised form: 13 Sep 2022,

Accepted: 19 Sep 2022,

Available online: 24 Sep 2022

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**Keywords—** Training-action, Health practices, Covid-19, Semi-arid.

**Abstract—** The training-action process called "The Cycle of Meetings: Healthy and Sustainable Territories in the Brazilian Semi-Arid - Popular Health Surveillance in Times of Pandemic", was characterized as a training space organized by the Articulation of the Brazilian Semi-Arid (ASA) and the Health Environment Work Program (PSAT) of Fiocruz - Brasília in the period from August to September 2020 where it sought to encourage dialogue, the construction of knowledge, the strengthening of community relations with the Unified Health System (SUS) and build strategies to confront the Covid-19 health crisis in the territories of the Semi-Arid. The Cycles were organized in five virtual meetings and territorial actions between meetings. They were oriented towards the construction of new models of understanding and action in the face of the Covid-19 pandemic, in order to discuss how the adoption of theoretical and practical approaches can enable the action of the organizations that make up ASA in the territories to strengthen agroecological transition systems, appropriate technologies for access to water and food security for families in the Sertão. It resulted in the construction of guiding principles for health practices for the resumption of the activities of ASA organizations in the territories in times of pandemics.

## I. INTRODUCTION

Convivência com o semiárido<sup>1</sup> is a regional and sustainable political project adapted to the diversity and

singularities of the Brazilian semi-arid region, which breaks

<sup>1</sup> The Brazilian semi-arid region, also known as the Sertão, corresponds to approximately 12% of the Brazilian territory, with 1.03 million km<sup>2</sup>, where 1,262 municipalities are located and an average population of 27 million people. It has specific climatic

characteristics, with rainfall rates averaging 750mm/year, with irregular and scattered rains. But the Brazilian semi-arid is not only climate, vegetation, soil, sun and water. It is people, music, festivals, art, religion, politics, history. It is a social process. It cannot be understood from just one angle. It brings with it a cultural identity beyond climate and biome (P. C. G. da Silva et al., 2010).

with the paradigm of combating drought that has hitherto guided state policies and actions for the region. It is based on the perspective of recognising and valuing local experiences, the knowledge and practices of farmers and community social experiences involving access to water, the struggle for land, the strengthening of family farming, agro-ecology and contextualised education. It is a matter of a way of acting and thinking, other ways of living and being in the region, in a kind of "paradigmatic shift, from the view of denial of the ecological characteristics of the region, to an approach of acceptance" (Chacon, 2007, p. 34).

In this scenario, the work of the Articulation Network of the Semi-Arid (Rede de Articulação do Semiárido<sup>2</sup> - ASA) stands out. This network is made up of more than three thousand civil society organisations of different natures, which have been contributing to the construction of an integrating political proposal, articulated with discussions on the emergence of a new paradigm of sustainability for the Semi-Arid: Living with the Semi-Arid (Conti & Pontel, 2013).

The arrival of the Covid-19 pandemic in Brazil, in early 2020, imposed great challenges to the population, because it is a disease with high potential for transmissibility and high mortality, exposing in the most distinct territories the technical and political unpreparedness to face a phenomenon of such magnitude. Caused by a virus identified as belonging to the Coronavirus family, which came to be called SARS-COV 2, this virus causes a Severe Acute Respiratory Syndrome (SARS), affecting mainly the lungs, but with the potential to affect other organs. The disease caused by this new *Coronavirus* was named "*Coronavirus disease 2019*" (COVID-19) (Damasceno & Façanha, 2020).

Faced with this scenario, rural populations, historically neglected by public authorities, are now facing great difficulties.

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<sup>2</sup> Created in 1999, ASA is articulated in ten Brazilian states with a semi-arid ecosystem: Alagoas, Bahia, Ceará, Maranhão, Minas Gerais, Paraíba, Piauí, Pernambuco, Rio Grande do Norte and Sergipe. ASA brings together about 1,200 organisations from the most diverse segments, such as churches, development and environmental NGOs, rural and urban workers' associations, community associations, trade unions and rural workers' federations that have been fighting for the social, economic, political and cultural development of the Brazilian semi-arid region. Its mission is to strengthen civil society in the construction of participatory processes for sustainable development and co-existence with the semi-arid region, based on cultural values and social justice (ASA, 2002, n/p).

In this sense, ASA's mission is to "strengthen civil society in the construction of participatory processes for sustainable development and co-existence with the semi-arid region, based on cultural values and social justice" (ASA, 2022, n/p).

Access to health services by the rural population faces several types of barriers: geographical, such as great distances from the service and road conditions; organizational, with difficulties in maintaining updated records by basic health care; political issues, among others. Some of the vulnerabilities in these territories are associated with the lack of sanitation (COSTA; SOUSA; et al, 2020, p.266).

Training in Popular Health Surveillance, in the context of Collective Health, can be strategic for the construction of coexistence with the semi-arid region at this time of the Covid-19 pandemic, as it generates a set of technical-scientific practices that modify not only the ways of feeling, acting think about the use of water, land and biodiversity in the semiarid, but also change habits, practices and attitudes, which strengthen the agroecological movement, the individual and collective health care practices, and the solidarity and democratic ways of relating to common goods.

The aim of this essay is to discuss the training in popular health surveillance carried out by ASA in partnership with the Oswaldo Cruz Foundation (Fiocruz), in the construction of health security strategies for the implementation of activities in the semi-arid territories in a context of the Covid-19 pandemic as a structuring axis in the Development of Healthy and Sustainable Territories in the Semi-arid.

This training process took place as a free course and was entitled "Cycle of Meetings: Healthy and Sustainable Territories in the Brazilian Semiarid - Popular Health Surveillance in Times of Pandemic", offered virtually between the months of August and September 2020 and sought to encourage dialogue, the construction of knowledge, from the exchanges between technical assistance groups and health professionals, strengthen relationships between communities and Primary Health Care<sup>3</sup> and build strategies to address the health emergency of Covid-19.

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<sup>3</sup> Primary Health Care (PHC) is internationally known as a strategy to organize health care, which seeks, in a decentralized, continuous and systematized way, to meet most of the health needs of a population, integrating preventive and curative, individual and collective actions (Matta & Morosini, 2008, p. 44). In Brazil, PHC incorporates the principles of the Brazilian Health Reform of integrality and universality and is now called Basic Health Care (BHC).

The training process is geared towards building new models of understanding and action against the Covid-19 Pandemic and aims to discuss how the adoption of theoretical and practical approaches can enable the action of the organizations that make up ASA in the territories to strengthen agroecological transition systems, appropriate technologies for access to water and food security for families in the semi-arid region.

The essay presents the theoretical and epistemological bases of training, the methodological tools, and the political and pedagogical structure of the training-action process and its interfaces with agroecological transition systems and appropriate technologies for coping with the semi-arid region, reflecting on the repercussions for ASA and the communities linked to it.

### **Training to strengthen agroecological systems for coping with the semi-arid region in times of the Covid-19 pandemic**

The training-action process Healthy and Sustainable Territories in the Semi-Arid (TSSS): People's Health Surveillance in Times of Pandemic, sought on the one hand to train technicians and technicians from ASA's programs and health professionals in the Semi-Arid for field actions in times of pandemics and on the other, to respond to the demands of society, especially rural communities in the Brazilian semi-arid region that are in a situation of environmental, economic and social vulnerability. It also aims to favour the strengthening of individual, collective and public capacities, and to increase the efficiency and effectiveness of care practices as a result of the Covid-19 health emergency and of public policies aimed at family farming.

## **II. THEORETICAL AND EPISTEMOLOGICAL BASES**

To develop theoretically and conceptually the content related to, it is assumed that territory is a field of research and experimentation (Macerata et al., 2020). Therefore, it cannot be reduced to a geographical space only. Territory reflects multifactorial fields of relationships and meanings that integrate elements of biome, history, culture, social recognition, as well as food and nutrition sovereignty and security.

But territory is also the place of creativity, of the possibility of peoples' autonomy, of resistance, of the production of resilience, of re-territorialization that imposes on the world the "revenge" and the "return to territory" in the metaphor of Milton Santos (2006). The process of

shaping the new paradigm of living with the semi-arid region in conjunction with the production of a horizontal network of organizations and social movements that make up the ASA Network is an example of this possibility of meaning and social practice in the reconstruction and disputes over the meanings (territorialities) of territory.

The territory has been constituted as the basis on which the social determinations of the health-disease-care process produce transformative effects and, therefore, has also been a reference for the field of collective health. Thus, "it is not the territory itself that makes it the object of social analysis" (M. Santos, 2004, p. 138), but its uses and the experiences present there. In this sense, the healthy and sustainable life of a territory is expressed over time, in its environmental, cultural, economic, political and social dimensions, in a multiscale way, manifesting itself, therefore, within the global, regional and local development (Machado et al., 2017).

To the extent that territories result from social-natural constructions, it is possible to undertake actions for Healthy and Sustainable Development (Machado et al., 2017), understanding that the discussion of sustainable development starts from the rupture with other modes of development that led us, and lead us, to considerable social and ecological wear and tear at local, regional and international levels. Sustainable development is defined by the United Nations (UN) as that which meets the needs of the present without compromising the ability of future generations to meet their needs (UN, 1987)

Coexistence with the semi-arid region brings back and values the debate on sustainable development. The proposal of coexistence, loaded with various meanings and senses, expresses a change in the perception of the complexity of the territory and makes it possible to build or recover relationships of coexistence between human beings and nature, based on local knowledge and resources.

The development of the Semi-arid is closely linked to the introduction of a new mentality regarding its environmental characteristics and changes in practices and indiscriminate use of natural resources (Conti & Pontel, 2013, p. 27).

From this perspective, the principles of storing and conserving in order to live together emerge:

Storing water for human consumption, storing water for food production, storing food for people and animals, storing local seeds, conserving the caatinga

vegetation and its multiple creations and recreations of life (Baptista et al., 2021, p. 267).

In coexistence with the semi-arid region, Agroecology is characterised as a strategy of sustainability, capable of providing families in the semi-arid region with significant environmental, economic and social benefits and, in an equitable and sustainable way, feeding families.

Agroecology as a science seeks to apply the principles of ecology in agriculture, (Gliessman, 2015), supporting the strategies of families in designing and redesigning the management of their agroecosystems, so that they become more productive, sustainable and healthy. It also contributes to the struggle of farming families for autonomy, in the face of the logic imposed by the capitalist model of combating drought. According to Altieri

TO agroecology represents an inspiring example of a powerful systems approach and, at this time of the coronavirus pandemic, agroecology can help explore the links between agriculture and health by demonstrating that the way agriculture is practised can on the one hand promote health or, conversely, if it is poorly practised, as in industrial agriculture, can cause major health risks (Altieri & Nicholls, 2020, p. 2).

Social Technologies (STs) are healthily suited to the issue of access to water in semi-arid communities, given the fragility of water resources, the sustainable management of springs and the valorisation of the capture, storage and management of rainwater for appropriate production. STs have emerged on the national scene as a movement that stems from the experimentation of individuals in the territories, which is differentiated by the creative and organisational capacity of population segments to create alternatives to meet their needs or social demands.

In Brazil, its use has gained momentum since the Conference of the Parties to the United Nations Convention to Combat Desertification and Drought (COP3-Olinda, 1999), when the 1 Million Cisterns Programme (P1MC) was launched in line with the strengthening of ASA - a network of civil society organisations working to build coexistence with the semi-arid region. It is based on the idea that drought is a condition that can be mitigated through the articulation of local groups and the development of specific technologies (Adriano B. Costa & Dias, 2013).

Dagnino (2014), considers ST as a construction that comes from popular knowledge, being an open process (not prescriptive), which can be modified when replicated, according to the local needs of each community.

The ST can also be considered an alternative, inclusive, efficient, and aggregating tool because it is thought out and built in a participatory manner, involving popular knowledge present in each territory. According to Dagnino (2010), ST articulates two dimensions that are inseparable for the construction of a methodological approach to social inclusion: the conceptual dimension (theoretical-analytical) and the material dimension (of social intervention). In view of this, the protagonism of the community is fundamental in the construction of alternatives, considering popular knowledge to think of solutions applicable at the material level with a view to intervention in various local contexts.

The need to adopt technologies appropriate to the reality of the Semi-arid has been strongly emphasized by society's organizations and researchers who propose and experiment with alternatives for the development of this region (Ghislaine Duque, 2008, p. 137).

One of the characteristics pointed out is the development of technologies that provide harmonious co-existence between human beings and nature, taking advantage of the biodiversity of the caatinga with all its natural resources, thus contributing to the sustainability of the territory.

For farming families in the Sertão, access to water is fundamental in the current health crisis in Covid-19. Therefore, STs, such as rainwater catchment cisterns and household filters, are necessary not only to guarantee access to water for consumption and cleaning, but also for the autonomy and food and nutritional security of families and the community.

To analyse the health situations in the territories it is necessary to understand the process of social determination of health in a historically contextualised way, placing the factors of determination in the modes of production and reproduction of life and in the process of organisation of national states in the emancipatory perspective of Breilh, (2006), allows a broader understanding of popular surveillance in health.



When it comes to the concept of *popular surveillance* in surveillance, it is still under construction. Vicent Valla, (1998), for example, works with the perspective of citizen surveillance, based on the guidelines of popular education in health and participatory bio-research. Breilh, (2006), in turn, starts from the understanding that, in the capitalist mode of production, popular action needs to be emancipatory in order to emancipatory, in order to recognize the subject as active, as owner of his life, as the owner of his history. These subjects include various individual and collective subjects, including collective, including the Academy.

Thus, the idea of popular surveillance in health emerges led by the Academy, in joint action with social movements, in an attempt to build the concept of militant research, where the actors define projects and processes collectively.

It is from this perspective that the idea of popular biosurveillance arises, which is in line with Breilh's (2006) understanding of critical epidemiology, which refers to the established power relations and the need to ensure surveillance that is not merely an instrument of state action, but one of transformation.

For this transformation to occur, it is necessary that the subjects actively participate in the process from the beginning; it is fundamental that the insertion of the subjects is guaranteed, so that their knowledge and ways of living are respected. The country people, the rural workers, the fishermen, the settlers, the quilombolas have a way of life, a knowledge that should be recognised, respected and incorporated, in such a way that surveillance also acts as an instrument of mediation and negotiation. Understanding that the relationship between capital and labour defines the process of reproduction of life and the organisation of society.

From this perspective, the popular surveillance in health adopts a dialogical form (singular, particular and general) which demands and requires protective and reparatory measures. Thus, it is necessary to start from a more general dimension. Currently, to address any environmental problem, health or of any nature, it is necessary to understand the social, political, economic, cultural context in which one lives, in its local and global dimensions, and taking into account their reverberations and replications in national states.

For Breilh, (2006), the dimensions of the general, the singular and the particular require actions that are both protective and reparative. In the singular, there are phenotypic and genotypic issues that will certainly interfere. Some

have genetic issues that favour certain processes of illness and this illnesses and this must be considered. There are also the particularities when considering the social solidarity networks established among the different groups, which, in turn, articulate themselves in a specific way with each other and with several governmental and non-governmental entities (Universities, NGOs, Health Departments). In the more general context, we must also observe the Public Policies in the sense of offering answers in the form of protective or reparatory actions.

According to Breilh, (2006), it is necessary to consider what he calls the "4 Ss" of life:

- ✓ SOVEREIGNTY: perspective of sustainability and sovereignty within the framework of the relationship between production and social reproduction;
- ✓ SOLIDARITY: how the networks and organised social subjects manage to establish some mechanism of protection and reparation, including in terms of guarantees from the State;
- ✓ SUSTAINABILITY: present in the territorial interventions to promote a Healthy and Sustainable Territory (TSS);
- ✓ HEALTH AND SECURITY: this is bio-security, or the State's social protection apparatus made available for the well-being of the subjects.

This is a perspective of popular health surveillance that is being built and has few experiences - some very significant in the current context of the Covid-19 Pandemic.

### III. POLITICAL-PEDAGOGICAL STRUCTURE OF THE TRAINING PROCESS

The Pedagogy of Alternating Cycle (PA) was the pedagogical path chosen for the construction of knowledge with the territories and in the organization of the Cycles of Meetings of the Formation Process and is considered one of the teaching-learning strategies most appropriate to the reality of life in the countryside (L. H. da Silva, 2007). Because through its methodology and contents contextualized in the life and reality of each territory, it is directly related to the need to promote greater integration between theory and practice, and is materialized in the alternation between moments of concentration - School Time (TE), and moments in the territory - Community Time (TC) (L. H. da Silva, 2007).

Training based on the AP is organised in two stages. The first is TE, which in this case was five remote

meetings, and is characterized by the time when the students remain part of their time in direct contact with the educational institution and have the opportunity to relate and dialogue directly with the educator and with the content constructed and validated by science. Furthermore, this time also encourages theoretical debate and the construction of connections with the different experiences in their territories, promoting critical reflection on relevant issues.

The transforming intervention occurs at the moment of the TC because that is when the students return to their territories with the purpose of carrying out a set of activities that were guided by the educators in the TE. For Silva,

Alternating cycle, as a pedagogical principle, more than the characteristic of repeated sequences, aims to develop in formation situations in which the school world is positioned in interaction with the surrounding world. Under this aspect, the idea of alternation is converted into a strategy of schooling that allows the young people who live in the countryside to combine schooling with the productive activities and tasks of the family unit, without being disconnected from the family and the culture of the field (L. H. da Silva, 2007, p. 105).

This pedagogical strategy of alternating cycle is based on the critical-historical line, for which it is not possible to understand the pedagogical process separate from the social process, that is, it is necessary to start from the links between education and society, objectified in the social practice of the students.

The Discussion Cycles were constituted as spaces of intersectoral connections between health, sanitation and food and nutritional security in the context of the pandemic. Technicians from the health, agrarian, education and social areas, farmers and traditional peoples were involved in these debates, enabling a dialogue on protection and care with the communities in the face of the problematization of the dynamics of spatial and temporal movement of the pandemic in relation to the paths of water and food, disseminating experiences of multiple health barriers in the

context of building networks of popular health surveillance actions for the promotion of healthy and sustainable territories in the semi-arid region.

The training process was developed in a cycle of five remote face-to-face meetings via the Zoom platform. Between one meeting and another, in the TC, there was group work to continue the reflections and orientations of the face-to-face time. The meetings were held once a week, every Thursday between 20 August and 17 September 2020, lasting four hours.

The class was organized into groups taking as criteria the heterogeneity of the subjects participating and a specific spatiality in the semi-arid territory, articulated to the work and life of all the members, thus allowing the groups to remain articulated throughout the training track. Therefore, five groups were formed, subdivided into ten subgroups, to hold debates and contextualized deepening on the themes and organization with the purpose of sharing the synthesis built. The subgroups had the presence of tutors to mediate and facilitate the debates, contribute to the guidance on the issues proposed for reflection, inform and facilitate the process based on the reality in the different territories.

The remote Face-to-Face Meetings were organised in three moments:

Moment 1: synthesis of the previous meeting and presentation of the group work, which is intended to reconnect the group and share what each person has experienced in their territories;

2nd Moment: Approach to a new theme, from the sharing and analysis of innovative and instigating experiences related to it, this moment seeks to theoretically deepen a new theme in dialogue with the groups' experience; and

3rd Moment: Debate in the plenary and group debate on the new theme, with the intention of making syntheses between what has been lived, scientific knowledge resulting in new constructions of knowledge and pointing out new needs.

The curricular proposal of the training was thematic, and each meeting was interwoven with the other by guided activities to be carried out in the Community time.



Fig.1 - Map of the location of the participants in the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in times of Pandemic.

**Source:** Booklet of the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in Times of Pandemic (ASA-FIOCRUZ, 2021).

Table 1 - Organisation of contents and route

Theme	Contents
<b>I - Resistance in the semi-arid region and socio-environmental and health context in times of pandemics.</b>	<p>Review of the journey of ASA Network, contextualization of coexistence with the semi-arid and challenges of the current pandemic.</p> <p>Health promotion in times of pandemic. Popular health surveillance. Health and Territory. Connection between the ways of people, water and food.</p> <p>Experience of one organisation's performance, in the field, in the pandemic.</p> <p>Visibilization of surveillance and health promotion experiences in communities. Health vision in the territories.</p>
<b>II - Water Paths in times of pandemic</b>	<p>Experience in territories addressing water ways in communities/territories, considering available waters.</p> <p>Integration between Waterways and Multiple Health Barriers and People's Health Surveillance.</p>
<b>III - Food security in times of pandemic</b>	<p>Territorial experiences with productive backyards and seed banks.</p> <p>Health promotion and food and nutritional security. Food culture as an expression of good, of a harmonious relationship with life. Territory as a food heritage. Real food and nutrition. Food diasporas.</p>
<b>VI - People's Health Surveillance</b>	<p>The construction of Action and Connection Strategies in</p>

<b>Plans in times of Pandemic</b>	<i>Popular Health Surveillance on a territorial basis.</i> <i>Experience on Strategies for Action and Connection: the training of popular agents in health.</i> <i>Synthesis and future connection for the construction of popular surveillance strategies.</i>
<b>V - Closing and Future Directions</b>	<i>Synthesis of the work produced collectively and outlining the way forward.</i>

**Source:** Booklet of the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in Times of Pandemic (ASA-FIOCRUZ, 2021).

The work of the TC was guided by generating questions, questions that provoked discussion in the groups and the construction of knowledge, bringing the contents worked in the TE closer to the knowledge and practices developed in the territories.

Chart 2 - Guiding themes of the group work and collective construction of knowledge,

<b>Meetings</b>	<b>Generator Questions</b>
<b>Meeting I</b>	<i>Where do the actions of the ASA/Brazilian Agricultural Research Company (EMBRAPA) programmes and health actions interrelate in the communities where we operate?</i> <i>How do these interrelationships happen? Or why don't they happen?</i>
<b>Meeting II</b>	<i>What are the multiple health barriers that you recognise in your territory?</i> <i>What actions already exist or can be carried out to contribute to the implementation of multiple sanitary barriers in the communities where we operate?</i> <i>How can communities, from the waterways, build multiple health barriers?</i>
<b>Meeting III</b>	<i>How can the healthy eating pathway strengthen health barrier strategies?</i> <i>How can families be strengthened for the production, circulation, distribution and access to healthy food in times of pandemic?</i> <i>Considering the healthy food pathway and the water pathway, what are the other possibilities of construction and strengthening, associated with multiple health barriers, in the communities?</i>
<b>Meeting IV</b>	<i>Based on the previous discussions and debates, how do we build procedures and territorial action strategies for Popular Health Surveillance?</i>
<b>Meeting V</b>	<i>Guidance for the production of institutional documents defining strategies for the return to the field, including a survey of all materials and Personal Protective Equipment (PPE) that will be needed for the return to the field.</i> <i>In charge of ASA organizations.</i>

**Source:** Booklet of the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in Times of Pandemic (ASA-FIOCRUZ, 2021).

The cycle of meetings was attended by 238 people, including: ASA technicians and technicians, Community Health Agents from the municipalities in which ASA organizations operate, health professionals from EMBRAPA and the Oswaldo Cruz Foundation - Fiocruz, students from the Professional Master's Course in

Health, Environment and Work linked to the Postgraduate Program in Public Health at Fiocruz Brasília in partnership with the Postgraduate Program of the Aggeu Magalhães Institute IAM of Fiocruz - Pernambuco and representatives from civil society and governmental organizations. The presence of technicians and technicians from ASA and



Community Health Agents was more expressive. In relation to gender participation, the presence of women

(145) was greater than that of men (93). All participants were from the Brazilian semi-arid region.

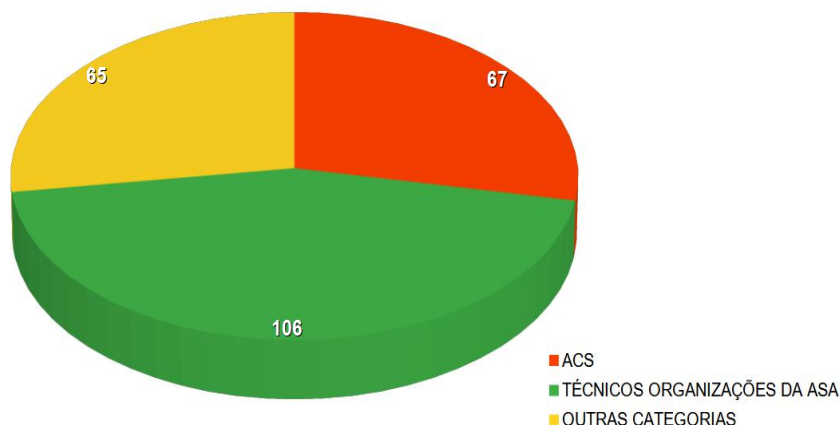


Fig.2 - Total Participants of the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in times of Pandemic.

**Source:** Booklet of the Cycle of Meetings: Territory, Healthy and Sustainable in the Brazilian Semi-Arid - Popular Health Surveillance in Times of Pandemic (ASA-FIOCRUZ, 2021).

#### IV. PEDAGOGICAL AND METHODOLOGICAL TOOLS FOR ACTION IN THE TERRITORIES IN THE CONTEXT OF A PANDEMIC TO STRENGTHEN AGROECOLOGICAL TRANSITION SYSTEMS AND FOOD SECURITY

From the systematisation of the work done in the groups, some guidelines were drawn up for the work to be done in the territories, showing that all the organisations, together with their technicians and technicians, should seek to reflect on the paths that each one will take to return to the communities, prioritising care for life and people. These strategies must take into account three fundamental elements: caring, affection and affection.

It was very evident in the working groups' reports of a political will, a commitment and a desire for the strategies for returning to the field to incorporate narratives of care, affection, affection, protection and the importance of communities, thus reaffirming the Pedagogy of Care<sup>4</sup> and contextualised education<sup>5</sup>.

<sup>4</sup> Pedagogy of Care: care as a political act, committed to the construction of a world capable of overcoming oppression, reducing inequalities, committed to a project of happiness and humanization.

<sup>5</sup> "Contextualised education in the semi-arid region - is characterised by an education that organises school contents in dialogue with the territory where it is inserted (geographical space, culture, identity and the specificities of the place) deconstructing stereotypes and stimulating the construction of a

The main guidelines resulting from the training cycle:

1. The actions to return to the field must start in the territories, the places where the actions are located must be the starting point to discover possible ways to carry out the activities, so the relationships between ASA and local leaders and Community Health Agents must be strengthened;
2. Actions must be collective, integrated, networked, integration with the municipality, with the state, with the world is needed in the construction of people's health;
3. The paths must be built from the significant and political recognition that there are several subjects involved, technicians, health agents and families, and that it is in the dialogue with the families that definitions will occur, because they are the subjects of the process and of the decisions;
4. Farmers are subjects of rights, so they have the right to technical assistance, to technical monitoring by organizations, and to the right to a dignified, quality life with health for themselves and for everyone. The technicians and technicians of the organizations, and health professionals,

new look on the semi-arid region, it is a process of re-signification and socio-spatial reorganisation" (KRAUS, 2015, p. 26).

have the task of creating the conditions and prospects for farmers to recover and assume their role as subjects of rights;

5. The pandemic is not only a health and hygiene issue, but a deeper issue, one of building new forms of sociability, new relationships with others, with the territory and with nature, a society without discrimination, more egalitarian.

In the guidance on sanitation practices some general guidelines were listed:

1. Health care measures must consider the different levels of action, whether individual or collective, with their respective singularities, considering the different ways of building and rebuilding life in the territories, observing the occupation of spaces, the use of territory, the availability, access to and management of water, food production, agro-biodiversity management practices, and the way and organisation of the farmers' work process;
2. It is necessary to organise and plan the times of the return to the field, considering the safety of both the technical teams of the organisations and the families:
  - a) make a previous contact with the family that will visit, informing about the visit, seeking information about health conditions, authorization for the visit, exchange information about the necessary care during and after the visit, agree on some safety procedures;
  - b) when making the first contact with the family, follow the previously agreed protocols;
  - c) During the visit and the activity to be zealous, to keep the pacts and be attentive to the process and to make a health record, beyond the agreed barriers, to observe how the feeding conditions are, the water management, the mental health of the family, the relationships between family members, the situation of the elderly, those who are part of risk groups, women. Leave guidelines on how to proceed after the visit;
  - d) and after the visit, make contact with the family to follow up and be attentive to any interurrences that may arise.
3. Reaffirm and redefine the sanitary barriers, adapting them to all the places where the family and the team circulate in the territory, whether in the home and its surroundings, in the areas of

cultivation, animal husbandry, agro-industry, cooperative, fairs, meetings, seeking to ensure the use of personal protective equipment and access to sanitizing inputs, water, soap, alcohol and bleach;

4. Promote the circulation, by virtual means, of educational and informative materials on the sanitary emergency situation, water management and the strengthening of agroecological transition processes underway on the farms;
5. Organise popular health surveillance strategies in the territories, involving young people, leaders, community caregivers, integrated with Community Health Agents and the Unified Health System.
6. The food security of the families, being strengthened and encouraged, the exchange and donation of seeds, agricultural and animal production, strengthening the agroecological transition processes as a defence of life and territory in the semi-arid region;
7. Water management in its various uses: for human and animal consumption, for personal and family hygiene, for food production, for sanitising work tools, for products purchased off the property, for transport, for public and private spaces.

## V. CONCLUDING REMARKS

This training process recognises that the health crisis in Covid19 aggravates the general picture of social vulnerability that affects rural areas, especially rural populations in the semi-arid region. But on the other hand, it is believed that the negative impacts of the virus in this region could have been much greater if it were not for the Strategies for Coexistence with the Semi-Arid.

These strategies seek to strengthen the use and management of traditional genetic resources, conservation of native seeds, ensuring food and nutritional security for farmers and consumers, improving the socioeconomic conditions of families and the use of natural resources, and are closely related to human health in its various dimensions.

The health crisis, in turn, has intensified the social isolation of communities that are already isolated due to the lack of communication systems and/or the precariousness of public services.

The rescue of species diversity, the search for food autonomy of families and agroecological practices become effective health barriers that contribute to the

construction of healthy and sustainable food systems in the health emergency and post-emergency.

The pandemic moment is a moment of exception, so the return to the field requires extraordinary measures that take into account the specificities of the territories, the sanitary crisis and the health of communities. The cycles, in turn, occurred at an opportune moment to address these redefinitions of procedures, on the one hand, as conceptual and methodological support; and on the other, to draw attention to an expanded conception of health, the protagonism of communities in health surveillance and care, relating it to practices of building Healthy and Sustainable Territories, strengthening coexistence with the Semi-Arid.

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